

UNCLASSIFIED

AD 295 142

*Reproduced
by the*

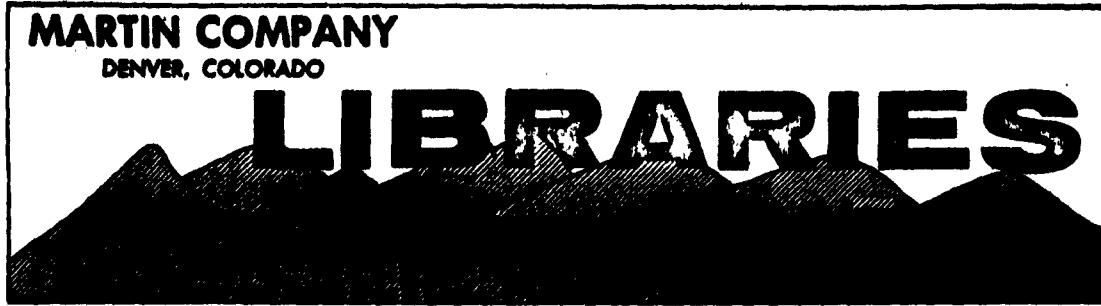
**ARMED SERVICES TECHNICAL INFORMATION AGENCY
ARLINGTON HALL STATION
ARLINGTON 12, VIRGINIA**



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

295142
AD No. 295142
ASTIA FILE COPY



A BIBLIOGRAPHY ON WEIGHTLESSNESS

Library Literature Search No. 23

1962

Compiled by

Eleanor RePass



ADVANCED TECHNOLOGY LIBRARY C-14 2721
RESEARCH LIBRARY A-52 2601

Aerospace Division of Martin Marietta Corporation

4110

Indexes covered in this Literature Search

Applied Science and Technology Index 1962

Air University Periodical Index 1962

IAS Abstracts 1962

Jet Propulsion Laboratory, Astronautics Information Abstracts 1962

NASA, Space Scientists and Engineers Selected Bibliography, 1957-1961

Technical Abstracts Bulletin 1962

Technical Publications Announcements 1962

Library Literature Search No. 23

A BIBLIOGRAPHY ON WEIGHTLESSNESS

January 1962

Compiled by

Eleanor RePass

Adamson, David, The gravitational field environment of an earth satellite. NASA-TN-D 1270, August 1962

Agmon, S. and L. Nirenberg, Properties of solutions of ordinary differential equations in Banach space. Inst. of Math. Sci. N.Y.U. AROD Rept. No. 247:52, December 1961. AD-273 083

American Astronautical Society, Hemodynamics evaluation at null gravity. December 29, 1961. RL 36,642.

Andes, G. M. and J. E. McNutt, Capillary phenomena in free fall. Jour. Aerospace Sci. 29:103-4, January 1962.

Beischer, D. E. and W. C. Hixson, Triaxial ballistocardiogram under zero gravity conditions. Naval School of Aviation Medicine, Progress Report, April 1, 1961 - October 1, 1961. N 62-10621

Benson, V. G. et al, Effects of weightlessness as simulated by total body immersion upon human response to positive acceleration. Aerospace Med. 33:198-203, February 1962. 62-3833

Brazinsky, Irving and S. Weiss, A photographic study of liquid hydrogen under simulated zero gravity conditions. NASA TNX-479, February 1962.

Callaghan, E. E., Weightlessness. Mach. Design 34:156-161, October 11, 1962.

Chambers, Randall M., Problems and research in space psychology. Aviation Medical Acceleration Lab., April 24, 1962. AD-275 830

Clifford, John E. et al, Research on the electrolysis of water under weightless conditions. Battelle Mem. Inst., 1961. MRL-TDR-62-44. N 62-16719

Cook, J. C., Measuring the phase velocity of an oscillating gravitational field. Franklin Inst. Jour. 273:453-71, June 1962.

Crawford, Billy M. and W. N. Kana, Remote handling of mass. Aerospace Med. Res. Lab. December 1961. ASD-TR-61-627. N 62-10695

Crockite, A. T. K. et al, Hypodynamic urolithiasis. A potential hazard during prolonged weightlessness - space travel. AF School of Aerospace Med. Review 2-62, December 1961, also N-62-17459, vol. 6 #2, p. 98. N-62-17459

Dicke, R. H., Botvos experiment. Sci. Amer. 205:84-94, December 1961.

Garbell, M. A., Soviet research on gravitation. An analysis of published literature. October 1961. AID-R-60-61. JPL 5,441

Gatenbeck, Robert J., Jr., Investigation and evaluation of hand operated zero gravity feeding devices, 1962. Flight Dynamics Lab. ASRM DD-TM-62-53. N 62-17098

Gaume, J. G. and W. Kuehnegger, Effects of chronic lunar gravity on human physiology. ARS Preprint 2469-62, July 17-19, 1962.

General Dynamics/Astronautics, Flight test plan POD 1. Scientific passenger POD program. Atlantic Missile Range. Report AE 61-1057. March 1, 1961. AD-326 865

Gerathewohl, S. J., Zero - G devices and weightlessness. National Academy of Sciences Publ. 781, February 1960. JPL 5,181

Glenn, John H., Jr., Pilot's flight report. NASA. In its "Results of the First U. S. Manned Orbital Space Flight," February 20, 1962. p. 119-136. N 62-10241

Graveline, Duane E., Effects of posture on cardiovascular changes induced by prolonged water immersion. Aerospace Med. Lab. ASD TR 61-563, March/May 1961. AD-270 869

Graveline, Duane E., Maintenance of cardiovascular adaptability during prolonged weightlessness. Aerospace Med. Lab., ASD TR 61-707, December 1961. RL 35,986. AD-273 605

Graveline, Duane E. and M. McCally, Sleep and altered proprioceptive input as related to weightlessness: water immersion studies. AMRL, 1962. AMRL-TDR-62-83. N 62-16543

Graybiel, Ashton, The significance of the vestibular organs - The problems posed by weightlessness. COSPAR, 1962. N 62-15219

Hamner, Lois R., Aeronautical systems division studies in weightlessness. 1959-1960. Aerospace Med. Lab., December 1961. WADD TR 60-715.

Hamner, Lois Reel, Perception of the visual vertical under reduced gravity. AMRL, 1962. MRL-TDR-62-55. N 62-16329

Hankins, Dale L. and P. J. Gardner, Liquid oxygen converter for weightless environment. Pioneer-Central Div., Bendix Corp., November 1961. ASD Tech Rept. 61-634. N 62-10143

Henry, J. P. et al, Effects of weightlessness in ballistic and orbital flight. Aerospace Med. 33:1056-68, September 1962.

Hess, W. H. and E. G. Konecci, Approach to reduced gravity studies for human experiments. Proc. of Aerospace Support & Operations Meeting, Orlando, Florida, December 4-6, 1961. I.A.S. JPL 5,428

Holden, George R. et al, Physiological instrumentation systems for monitoring pilot response to stress at zero and high G. Aerospace Med. 33:420-27, April 1962.

Hultquist, P. F., Gravitational torque impulse on a stabilized satellite. ARS Jour. 31:1506-9, November 1961.

Ivanova, M. P., Effects of weightlessness and physical exertion. J PRS-14796, August 16, 1962. Trans from Zhur Vseshei Nerynoi Deyatel'nosti 16. v. 12 #2, March/April 1962. N 62-14736

Ivanova, M. P., and A. S. Barer, Soviet studies on the effects of weightlessness and physical exertion. Translation of two articles from Zhur. Vseshei Nerynoi Deyatel'nosti im I.P. Pavlova (Moscow) 12:202-7; 332-7, April 1962 N 62-14736

Jacobs, H. L., The lack of bearing contact and the problem of weightlessness: the effect of past experience on human performance on a free-rotating, low-friction turntable. N. Y. Acad. of Sci. Annals. Vol. 84, Art. 9, September 30, 1960. IAS 62-654

Jet Propulsion Laboratories, Research summary No. 36-13 for the period December 1, 1961, to February 1, 1962. March 1, 1962. AD-274 OII

Kama, William N., Effects of simulated weightlessness upon positioning responses. Med. Res. Labs., December 1961. ASD-TR-61-555. N 62-13208

King, A. L., Weight and weightlessness. Amer. Jour. Phys. 30:387, May 1962.

King, Barry G. and Mitchell G. Mans, The feasibility of estimating the energy expenditure of astronauts through partial simulation of weightlessness. Operations Research, Inc., February 28, 1962.

Krivetsky, Alexander et al, Research on zero-gravity expulsion techniques. Second Quarterly Progress Report, August 1961 to November 1, 1961. Bell Aerosystems Co., Rept. 7129-933002. N 62-11555

Krivetsky, Alexander et al, Research on zero-gravity expulsion techniques. Final Report. Bell Aerosystems Co. Rept. No. 7129-933003, March 1962. N 62-11130

Lanton, R. W., Physiological considerations relevant to the problem of prolonged weightlessness: a review. Astronautical Sci Rev. 4:11-18, January-March 1962.

Laughlin, G. Patrick et al, Physiological responses of the astronaut. NASA. In its "Results of the First U. S. Manned Orbital Space Flight" February 20, 1962. p. 93-103. N 62-10238

Li, T., Hydrostatics in various gravitational fields. Jour. Chem. Physics 36:2369-2375, May 1, 1962.

Loftus, J. P. and L. R. Hammer, Weightlessness and performance. A review of the literature. Behavioral Sci. Lab., Aerospace Med. Div. ASD TR 61-166, June 1961. AD 267 041

Loret, Benjamin J., Optimization of manned orbital satellite vehicle design with respect to artificial gravity. Aerospace Med. Res. Labs., December 1961. ASD-TR-61-688. N 62-10677

Martin Company, MTSS. General human factors considerations. Vol. III
Final Report. ASD-CR-6-14. (U) July 1961. AD-273 005

National Research Council, Zero-G devices and weightlessness simulators.
February 1960. RL 26,164.

Nixon, Charles W. and C. E. Wagner, Speech during weightlessness. AMRL,
1962. MRL-TDR-62-45. N 62-16589

North American Aviation, Weightlessness: man in space. A literature survey.
1957 - August 1961. AD-282 469

Parin, V. V. et al, The possibility of protective adaptations of the organism
and limits of adaptation under conditions of maximum overstrain
and weightlessness. Transl. from Vestnik Akad. Med. Nauk SSSR
No. 4, p. 76-81, 1962. Joint Publications Research Service,
"Adaptation and Genetics" p. 35-42. N 62-17962

Pengelley, G. D., Gravitational torque on a small rigid body in an arbitrary
field. ARS Jour. 32:420-2, March 1962.

Pettrash, Donald A. et al, Experimental study of the effects of weightlessness
on the configuration of mercury and alcohol in spherical tanks.
NASA TN D-1197, April 1962. N 62-11002

Pigg, L. D. and W. N. Kama, Effect of transient weightlessness on visual acuity.
March 1961. WADD Tech Rept. 61-184. RL 27,461.

Pigg, L. D. and W. H. Kama, Visual acuity in relation to body orientation and
G-vector. AMRL, 1962. MRL-TDR-62-74. N 62-16312

Prince, John E., Introduction: scope-biopack-satellites, launch to recovery.
School of Aerospace Medicine. In its "Biologic Systems of
Discoverer Satellites" XXIX and XXX, April 1962. N 62-17527

Rees, David W. and Nola K. Copeland, Discrimination of differences in mass of
weightless objects. WADD-TR-60-601, 1961. N 62-14973

Roennau, L., Liquid-gass interface in zero-G. Final Report. Space Tech.
Labs. ASD-TDR 62-9, December 31, 1961. AD-273 652

Roman, J. A. et al, School of aerospace medicine physiological studies - high
performance aircraft. Aerospace Med. 33:412-419, April 1962.

Roman, J. A. et al, Some observations on the behavior of a visual target and
a visual after-image during parabolic flight maneuvers. 1962
School of Aerospace Med. SAM-TDR-62-66. RL 38,217. N 62-17367

Schmidt-Kaler, T., Free fall in Einstein's theory of gravitation. In German.
Astronomische Nachrichten 286:121-2, September 1961.

School of Aerospace Medicine, Lectures in aerospace medicine. 1962. AD-281 755

Schwartz, M. F., A pulse function, single axis, compensatory tracking apparatus.
Final technical report. Aerospace Med. Res. Labs. ASD-TR-61-73
December 1961. N 62-12764

- Simons, J. C. and W. Kama, A review of the effects of weightlessness on selected human motions and sensations, 1962. AMRL AD-282 116
- Skrotzki, G. A., Mechanics uncovers laws of angular momentum, gyroscopes, universal gravitation. Power 106:110-12, July 1962.
- Slater, J. V., ed., Biological systems in interplanetary environment. Semiannual Status Report, Series 3, Issue 3, Space Sci. Lab. February 28, 1962. N 62-12476
- Stingely, Norman E., The physiological responses of chimpanzees to simulated launch and re-entry accelerations. ARL TDR 62-11. AD-282 883
- Stone, R. W., Jr., and W. Letko, The effects of anular motion of rotating space vehicles on the ability of an astronaut to perform simple tasks. NASA for Annual Meeting of Inst. of Environmental Sci. April 10-13, 1962. N 62-12166
- Unterberg, W. and J. Congellieri, Zero gravity conditions in space powerplants. A status survey - Bibliog. ARS Jour. 32:862-72, June 1962.
- von Beckh, H. J., The incidence of motion sickness during exposure to the weightless state. Astronautik 2:217-224, 1961.
- Wade, James E., Psychromotor performance under conditions of weightlessness. Aerospace Med. Res. Labs., June 1962. MRL-TDR-62-73. N 62-16276
- Warren, Bruce H., Weightlessness - a physiological problem in space? School of Aerospace Med. In its "Lectures in Aerospace Medicine" January 8-12, 1962, p. 115-134. N 62-14204
- Weiss, Robert, Zero-gravity parabola techniques. Report on human performance in advanced systems. Lear, Inc., 1962. AD-278 680
- Zajac, E. E., Capture problem in gravitational attitude control of satellites. ARS Jour. 31:1464-6, October 1961.